

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002773**Date Inspected:** 02-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China**CWI Name:** Wang Sai Fa**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Deck Panel**Summary of Items Observed:**

Caltrans Quality Assurance Inspector Mr. David Kelsey (Caltrans QA Inspector) arrived at Shanghai Zhenhua Port Machinery Co (ZPMC) to observe the ZPMC Quality Control Inspectors noted below perform the duties and responsibilities as outlined in the Welding Quality Control Plan (WQCP), Contract Special Provisions and to randomly inspect the in-process welding fabrication at ZPMC fabrication facility for the Orthotropic Box Girder (OBG) and Tower bridge structural components.

This inspector randomly performed in-process visual inspection on the Gas Metal Arc Welding (GMAW) process for tack welding & fit-up on the U-Rib segments to the OBG deck plate DP556-001 in OBG Bay#1. This Inspector randomly observed the ZPMC QC/CWI Mr. Wang Sai Fa monitoring the welding voltage, pre-heat & interpass temperatures & cleaning, minimum tack weld length/spacing and travel speed per approved the approved WPS-B-T-2342-U2 (GMAW. See item 1 below in this report for welding voltage parameters for this WPS. This inspector also observed the fitter checking the clearance between to the U-Rib and deck plate with a .25mm filler gage in the vicinity of the tack weld area. Max gap allowed is .5mm, this inspector randomly checked the fit-up with a .25mm filler gage and I had no entry with the filler gage, the gap appears to be less than .25mm in the areas I randomly checked. This inspector randomly inspected some of the completed tack welds by welder Liu Xiao Ming (059343) in the as welded condition with the deck plate still in the restrained condition with an applied load and found no evidence of cracking at this stage of production.

The in-process welding, fit-up & joint preparation observed by this inspector appears to comply with previously mentioned WPS, the approved drawings, the WQCP, Contract Special Provisions and AWS welding code D1.5 (2002).

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Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	DP556-001-001	WPS-B-T-2342-U2	Wang Sai Fa	340	30.5	550	10 deg celsius min	tack welding of welds 002-010 also included

Summary of Conversations:

None noted.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry 858-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Kelsey,David	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
